

Remarks/Arguments

The foregoing amendments and these remarks are submitted in response to the Office Action mailed April 14, 2004 (Office Action). This response is being filed with a request for a two-month retroactive extension of time and the appropriate fee.

In paragraph 1 of the Office Action, the Applicant's election of Group I, including claims 1 - 4 and 11 has been acknowledged. Please cancel, without prejudice, claims 5 - 10 and 12 - 16. As claims 17 - 19 were cancelled by previous amendment, claims 1-4 and 11 now are pending.

In paragraph 5 of the Office Action, the title of the invention has been objected to for not being descriptive. The title has been amended as suggested in the Office Action. Accordingly, withdrawal of this objection is respectfully requested.

In paragraph 6, the specification stands objected to for not being in proper U.S. format. The specification has been amended to include section headings. Accordingly, withdrawal of this objection is respectfully requested.

In paragraph 7, the drawings have been objected to for not being properly labeled. More particularly, Figs. 2, 6, 9, and 12 have been objected to for not having labels for each circuit block shown. Corrected drawings are submitted with this response. The corrected drawings include labels for the various circuit blocks as suggested in the Office Action. As such, withdrawal of this objection is respectfully requested.

In paragraph 8, the Office Action requires a new abstract that appears in a single paragraph. A new abstract accompanies this response. Accordingly, withdrawal of this objection is respectfully requested.

In paragraphs 9 - 11, claim 1 has been rejected under 35 U.S.C. § 102 (b) as being anticipated by E.P.A. 0 443 847 to Tsukasa (Tsukasa). In paragraphs 12 - 13, claims 2 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsukasa. In paragraph 14, claim 3 has been objected to as being dependent upon a rejected base claim. Claim 11 has been allowed in paragraph 15.

In response, claims 1 and 11 have been amended to correct minor typographical errors. Claim 3 has been rewritten in independent form to include all

of the limitations of the base claim and any intervening claims as deemed allowable by the Examiner. Withdrawal of the objection is respectfully requested.

Prior to addressing the rejections on the art, a brief review of the Applicant's invention is appropriate. One embodiment of the present invention can include a data scanning device in which a scanning head is positioned relative to a data medium. The scanning device can include a driving mechanism which allows the data scanning head to move in steps and a monitoring device which allows an instantaneous position of the scanning head to be measured with at least a precision corresponding to a movement of one step. The scanning device also can include a power regulating device which outputs energy to the driving mechanism. The amount of power supplied can be increased until the driving mechanism moves the data reading and/or writing head by one step. The amount of power can be reduced afterwards.

Turning to the rejections on the art, claim 1 has been rejected under 35 U.S.C. § 102 (b) as being anticipated by Tsukasa. Tsukasa discloses an information recording and reproducing apparatus. The apparatus includes a velocity control device for moving a recording and/or reproducing head from a current track to a target track. The velocity control is operable, for example, during multi-track jumps. That is, velocity control can be used when the current track and the target track are separated by one or more tracks. Tsukasa, however, does not provide any teaching regarding the precision of the measurement of the monitoring device.

In Applicant's claim 1 invention, the monitoring device can measure an instantaneous position of the scanning head with at least a precision corresponding to a movement of one step. Tsukasa fails to provide any information about the precision of the measurement taken by the monitoring device. Therefore, Tsukasa does not teach that the instantaneous position of the scanning head can be measured with at least a precision corresponding to a movement of one step as Applicant recites..

Claim 1 further requires that the power regulating device output energy to the driving mechanism in an amount that is increased until the driving mechanism

moves the data reading and/or writing head by one step. Afterward, the amount of power is reduced. Tsukasa fails to teach or suggest such a feature. Significantly, while Fig. 6 of Tsukasa depicts a movement of the scanning head with an acceleration region and two deceleration regions, Fig. 6 depicts a multi-track jump, specifically illustrating a jump over 14 tracks. A multi-track jump is not the same as a movement of one step because the size of a single step can, at a maximum, be equal to the distance between adjacent tracks. Otherwise, it would not be possible to access all tracks on the recording medium. In fact, because the distance between adjacent tracks can vary due to tolerances, one step should be a fraction of the distance between two adjacent tracks.

Further, according to the present invention, the amount of power output to the driving mechanism is increased until the driving mechanism moves the data reading and/or writing head by one step, whereupon the amount of power is reduced. In contrast, Fig. 6 of Tsukasa clearly shows that when the movement of the scanning head has started, the amount of power is further increased to increase the velocity of the data reading and/or writing head. The amount of power is reduced only at the end of the acceleration region to decelerate the data reading and/or writing head.

In short, though the solution disclosed by Tsukasa is efficient for long distance track (multi-track) jumps, it is not efficient and lacks Applicant's calibrated movement for very short jumps. The solution provided by Applicant's present invention, however, is most efficient when the reading and/or writing head needs to be moved for a relatively small number of steps, e.g. only one or a few steps. The positioning of the reading and/or writing head is then performed step by step, which allows the destination of the data reading and/or writing head to be reached without an iterative jump sequence.

In light of the above discussion, withdrawal of the 35 U.S.C. § 102(b) rejection with regard to claim 1 is respectfully requested.

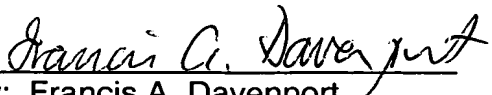
Claims 2 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsukasa. In view of the above, and by virtue of their dependency upon claim 1, Applicant believes claims 2 and 4 to be allowable. Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejection regarding claims 2 and 4 is respectfully requested.

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Applicant believes all claims to be in condition for allowance, which action is respectfully requested. The Applicant invites the Examiner to call the undersigned if it is believed that a telephonic interview would expedite prosecution of the application to an allowance.

Respectfully submitted,
Peter Mahr

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By: Francis A. Davenport
Reg. No. 36316
Tel. 609-734-6805

Patent Operations,
Thomson Multimedia Licensing, Inc.
Two Independence Way, Suite #2
Princeton, NJ 08540